

## CORE CURRICULUM FOR UNDERLYING CAUSE OF DEATH CODERS

This core international curriculum describes entry-level requirements. Its purpose is to provide a basis for education for all countries.

Availability of resource materials and essential references needed for coding

- Full set of the ICD-10 (tabular list, instructions and index) (current edition as updated by WHO)
- Periodic official WHO updates to ICD-10
- Medical dictionary
- Training materials relevant to core curriculum
- Drug references
- Abbreviation list
- Contact person to ask questions

### Knowledge Clusters:

Knowledge of basic medical science

*Intent: To develop an understanding of medical terminology that will be encountered in cause of death statements, the structure and function of the human body and the nature of disease*

- Medical terminology (A study of common medical terms related to major disease processes.)
- Basic anatomy (A study of the structure and function of the human body utilizing a system approach.)
- Basic physiology (A study of the disease processes affecting the human body.)
- Concept of etiology and risk factors
- Basic pathology (A study of the causes and nature and effects of diseases.)

Legal/Ethical issues relevant to the country in which coding is being done

*Intent: To introduce legal and ethical issues applicable to health information, its collection and release.*

- Privacy and confidentiality principles (see appended proposed principles)
  - Use of person-identifiable information
  - Adherence to relevant laws and regulations
  - Access to person-identifiable information
- Release of information
- Professional ethics

General uses of underlying cause of death data

*Intent: To explain the purposes for which underlying cause-of-death data are collected and how they are used.*

- Context in which coding is done
- Purposes for coding
- Statistical outputs

- Evidence for health policy
- Planning and evaluating health services and programs
- Medical and public health research
- Clinical education

Specific uses of underlying cause of death data

*Intent: To introduce the specific uses of coded mortality data*

- Health situation and trend analysis
  - Leading causes of death
  - Definition of policies and priorities
  - Planning health programs and services
  - Health indicators
  - Trend analyses
  - A critical element to identify:
    - Public health problems
    - Groups at risk
    - Needs of medical and sanitary research
- Epidemiological surveillance (all listed causes)
  - First or main source of information for certain diseases
  - At local level, investigation of cases, disease control measures
  - Specific population groups/problems (e.g., maternal and infant mortality, adolescents, elderly)
- Evaluation in health
  - Quality of care
  - Outcomes of specific programs
  - Different technologies

Users of mortality data

*Intent: To explain the different groups and stakeholders who are users of mortality data.*

- Epidemiologists
- Statisticians
- Program managers
- Actuaries
- Policy makers
- Researchers
- Demographers
- Educators and students
- International organizations (World Health Organization, United Nations)

Sources of Mortality Data

*Intent: To explain the roles of the different persons responsible for reporting data on the deceased and the sources of that data.*

- Providers of data (e.g., medical officers, coroners, medical examiners, funeral directors, and other informants)

- Source documents (e.g., death certificates, police reports, coroner reports, and other reports)

### The International Classification of Diseases (ICD)

*Intent: To develop an understanding of the ICD and to develop the knowledge and skills that are necessary to assign valid codes for causes of death.*

- Nomenclature and Classification
- International context
  - WHO Family of International Classifications
    - Reference Classifications (ICD and International Classification of Functioning, Disability and Health [ICF])
    - Derived and related classifications
- Standardization and comparability
- History of the classification
- Structure of classification
- Updating mechanisms of classification

### How to code

*Intent: to provide detailed instruction and experience on how to apply the coding rules and assign codes.*

- How to use different volumes of the ICD
- Concept of underlying cause of death
  - Definition
  - International format of medical certificate of cause of death
- Rules, instructions and conventions for coding underlying cause of death
- Appropriate exercises in selection and coding

### Quality Assurance

*Intent: To raise awareness about the various factors that influence the quality of coded data and describe techniques for assuring the highest quality data possible.*

- Quality of source documents
- Querying processes (e.g., sequencing on certificate, what and how to query)
- Editing and validation
- Timeliness, completeness and accuracy
- Responsibility for data quality
- Processes for accessing expert advice

### Appendix

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## CORE CURRICULUM FOR MORBIDITY CODERS

This core international curriculum describes entry-level requirements. Its purpose is to provide a basis for education for all countries. **There may be additional country specific items such as education in the applicable procedure classification not listed here.**

Availability of resource materials and essential references needed for coding

- Full set of the ICD-10 (tabular list, instructions and index) (current edition as updated by WHO)
- Periodic official WHO updates to ICD-10
- Medical dictionary
- Training materials relevant to core curriculum
- Drug references
- Abbreviation list
- Contact person to ask questions

### Knowledge Clusters:

Biomedical sciences

*Intent: To develop an understanding of clinical knowledge through the study of the structure and function of the human body, pathophysiology, diagnostic and treatment modalities, and pharmacy therapy available for clinical management of patient care and to enhance professional communication in healthcare environments.*

- Medical terminology (A study of common medical terms related to major disease processes, diagnostic procedures, laboratory tests, abbreviations, drugs, and treatment modalities.)
- Basic anatomy and physiology (A study of the structure and function of the human body utilizing a system approach. Emphasis placed on the gross and microscopic anatomy as well as the physiology of the cell, skeletal system, skin and muscular system, nervous system cardiovascular, respiratory, urinary, reproductive, endocrine, and digestive systems.)
- Pathophysiology/Disease process (A study of the disease processes affecting the human body via an integrated approach to specific disease entities, including the study of risk factors, etiology, manifestations, diagnosis and treatment of disease)
- Pharmacology (A study of the basic principles of drugs and their interactions)

Legal/Ethical issues relevant to the country in which coding is being done

*Intent: To introduce legal and ethical issues applicable to health information, its collection and release.*

- Privacy and confidentiality principles(see appended proposed principles)
  - Use of person-identifiable information
  - Adherence to relevant laws and regulations
  - Access to person-identifiable information

- Release of information
- Professional ethics

### Healthcare Data Content and Structure

*Intent: To introduce the generic components of the content, use and structure of healthcare data and data sets and how these components relate to primary and secondary record systems.*

- Content of the health record
- Documentation requirements
- Healthcare record data sets
- Source documents

### General uses of morbidity data

*Intent: To explain the purposes for which morbidity data are collected and how they are used.*

- Context in which morbidity coding is done
- Purposes for coding
- Statistical outputs
- Hospital disease indexing
- Evidence for health policy
- Planning and evaluating health services and programs
- Medical and public health research
- Disease registries
- Clinical education
- Reimbursement, e.g., case mix funding

### Specific Uses of Morbidity Data

*Intent: To introduce the specific uses of coded morbidity data and health information appropriate to healthcare settings.*

- Quality and utilization of healthcare services
- Quality assurance
- Utilization of healthcare services
- Healthcare clinical decision-making and communication
- Monitor outcomes
- Measure performance
- Health situation and trend analysis
- Leading causes of disease and injury
- Notifiable diseases
- Definition of policies and priorities
- Planning health programs and services
- Public health
- Medical research
- Performance improvement activities
- Monitor service and resource utilization, analyze healthcare costs

- Health research and treatment development
- First or main source of information for certain diseases
- At local level, investigation of cases, disease control measures
- Specific population groups/problems (e.g., maternal and infant mortality, adolescents, elderly)
- Healthcare management and policy decision-making

#### Users of morbidity data

*Intent: To explain the different groups and stakeholders who are users of morbidity data.*

- Providers (e.g., clinicians, hospitals)
- Third parties (e.g., government, insurance)
- Epidemiologists
- Statisticians
- Program managers
- Actuaries
- Policy makers
- Researchers
- Educators and students

#### Healthcare Delivery Systems

*Intent: To provide an awareness of the organization, financing and delivery of healthcare services*

- Organization of healthcare delivery
- Healthcare organizations
- Accreditation standards if any
- Licensure/regulatory agencies if any
- Payment and reimbursement systems if any

#### International Classification of Diseases (ICD)

*Intent: To develop an understanding of the ICD and to develop the knowledge and skills that are necessary to assign valid diagnostic codes.*

- Nomenclature and Classification
- International context
  - WHO Family of International Classifications
    - Reference Classifications (ICD and International Classification of Functioning, Disability and Health [ICF])
      - Conceptual framework and structure of ICF
      - Complementary relationship between ICD and ICF
    - Derived and related classifications
- Standardization and comparability
- History of the classification
- Development of clinical modifications
- Structure of classification
- Updating mechanisms of classification

## How to code

*Intent: To provide detailed instruction and experience on how to apply the coding rules and assign codes.*

- How to use different volumes of the ICD
- Coding rules, instructions and conventions of ICD
- Coding Guidelines/standards
- Sequencing Guidelines
- Definition of main diagnosis, secondary diagnoses etc. as per volume II of ICD-10. Local definitions relevant to the country in which training is occurring such as principal diagnosis, other diagnoses
- Appropriate exercises in coding and sequencing

## Quality Assurance

*Intent: To raise awareness about the various factors that influence the quality of coded data and describe techniques for assuring the highest quality data possible.*

- Quality of source documents
- Querying processes (e.g., sequencing of diagnoses/procedures, what and how to query)
- Editing and validation
- Timeliness, completeness and accuracy
- Responsibility for data quality
- Processes for accessing expert advice
- Clinical coding audit

## Appendix

August 16, 2004

## Appendix 1

### **Proposed Confidentiality and Privacy Principles**

*The following recommendations are for organisations holding personal health data. Organisations and clinical coders should comply with the following principles:*

- Justify the purpose – Every proposed use or transfer of person-identifiable information within or from an organisation should be clearly defined and scrutinised, if possible prior to the collection of the data, with continuous uses regularly reviewed.
- Do not use person-identifiable information unless it is absolutely necessary - Person-identifiable information items should not be used unless there is no alternative. Knowledge and consent by the individual should be obtained where necessary.
- Use the minimum necessary person-identifiable information – where it has been considered that person-identifiable information is essential, each data item should be justified separately, with the aim of reducing identifiability.
- Personal health information should be as accurate and up to date as necessary for the purposes for which it is collected.
- Access to person-identifiable information should be on a strictly need to know basis – Only those coders who need access to person-identifiable information should have access to it, and they should only have access to the items they need to see. Both the amount and type of information collected are limited to what is necessary to fulfil the purposes identified.
- Everyone with access to person-identifiable information should be aware of their responsibilities – All coders should be fully aware of their responsibilities and obligations to respect confidentiality. Personal health information should not be disclosed for purposes other than those for which it is collected unless permitted by the country's confidentiality and privacy policies as articulated in law or regulation.
- Understand and comply with the law (Data Protection) of the respective country – Every use of person-identifiable information and data must be lawful and fully upheld by the coder.
- Liaise closely with Data Protection Manager (if in post) – Especially with reference to sending confidential information over the internet or via e-mail. Personal information should be protected with appropriate security safeguards.